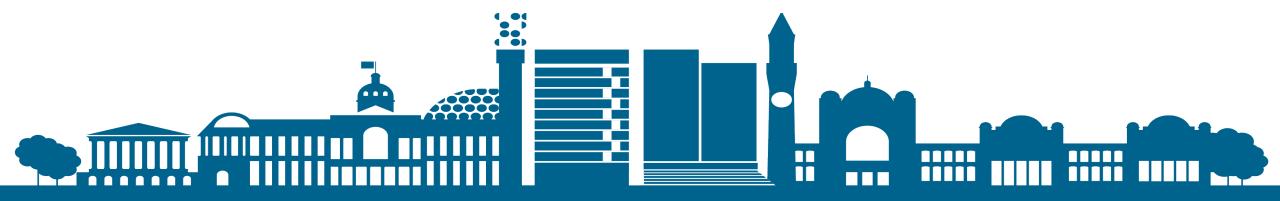


UoB contributions to the YR tracking WG

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UoB contributions to the YR tracking WG

- □ Work already done as eRD18 (see next slide with link to material)
 - Survey of silicon sensors technologies for vertex and tracking at the EIC
 - Technology investigations into depleted MAPS (i.e. HV/HR-CMOS)
 - Preliminary set of specifications for an EIC specific sensor
 - Feasibility study into a low power pixel FE architecture for an EIC sensor
 - Results from basic layout simulations based on EICRoot
 - Baseline performance plots for a Si+TPC and all silicon tracker design (central and forward regions)
- Work starting
 - R&D into new generation MAPS (65 nm) as baseline EIC Si vertex and tracking technology
 - Physics performance simulations with G4E framework
 - □ Software already installed and running (thanks for Yulia & Dmitry)
 - Main interest in heavy flavour physics simulations

eRD18 reports and talks

- https://wiki.bnl.gov/conferences/images/0/05/BhamEICProposal-15Jun.pdf
- □ https://wiki.bnl.gov/conferences/images/3/32/BhamEICProposal.pdf
- □ https://wiki.bnl.gov/conferences/images/7/7d/ERD18_ReportJan17.pdf
- □ https://wiki.bnl.gov/conferences/images/e/e3/ERD18UpdateJan17.pdf
- □ https://wiki.bnl.gov/conferences/images/f/fd/ERD18_ReportJun17.pdf
- □ https://wiki.bnl.gov/conferences/images/1/1d/ERD18ReportJuly17v3.pdf
- □ https://wiki.bnl.gov/conferences/images/7/72/ERD18 ProgressReport Jan2018.pdf
- □ https://wiki.bnl.gov/conferences/images/7/78/ERD18ReportJan18v1.pdf
- □ https://wiki.bnl.gov/conferences/images/d/dc/ERD18-Report-FY19Proposal-Jun18.pdf
- □ https://wiki.bnl.gov/conferences/images/9/97/ERD18-FY18Report-FY19Proposal_v2.pdf
- □ https://wiki.bnl.gov/conferences/images/c/c0/ERD18ReportDec18.pdf
- □ https://wiki.bnl.gov/conferences/images/c/c5/PeterJones.pdf
- □ https://wiki.bnl.gov/conferences/images/5/59/ERD18 Report-FY20Proposal-Jun19.pdf
- □ https://wiki.bnl.gov/conferences/images/8/87/ERD18ReportJul19v1.pdf
- □ https://wiki.bnl.gov/conferences/images/3/30/ERD18 Jan-2020.pdf
- □ https://wiki.bnl.gov/conferences/images/6/65/ERD18ReportJan20v0.1.pdf
- □ Summary on DMAPS technology investigations:
 - https://wiki.bnl.gov/conferences/images/9/9a/ERD18_TJ-Summary-Jun19.pdf
 - https://doi.org/10.1016/j.nima.2019.163381

